

## PRESIDENT'S MESSAGE

Since the first of the year, the Office of Federal Contract Compliance (OFCC) of the Department of Labor has been working on various drafts of an order related to the use of psychological tests in industry. Their reason for such an order is that they believe improper use of tests may result often in unfair discrimination against minority group job candidates. Obviously this is a matter that should be of major concern to many Division 14 members.

The order has been through many drafts, and at least two meetings have been held in Washington with test experts from both industrial and academic settings. Division 14 members played an active roll in both meetings.

If nothing else, the attempts to write this order and the discussions held in Washington have pointed up how complex these issues really are. It is extremely difficult to spell out exactly what "proper test usage" should comprise. The first draft of the order insisted that any test used for employment decisions must have been validated in a predictive study in the exact setting in which it is being used. Obviously, such a decree is, at the least, impracticable if not outright impossible in a large majority of the situations in which employment tests are now being used. No wonder some persons who saw this original version came to the conclusion that OFCC's purpose was to do away with all psychological testing!

A third version of the order relaxed the demands for solely predictive studies and for rigid adherence to local validation, but it still placed sole focus on empirical (or "practical") validation strategies and ignored the issues related to the lines of progression from entry level jobs to positions of greater responsibility (e.g., many union-management agreements provide that seniority will be the prime basis for promotional actions, thereby "forcing" many companies to fix unduly high standards on initial employment decisions).

I finally decided to see if I could "put up or shut up" by trying to revise the order so that everyone--OFCC, test publishers, test users, Division 14 members, members of

### CONTENTS

President's Message . . . . .	1
Suggested Revision of OFCC Testing Order . . . . .	4
Official Divisional Business	
Minutes of Spring Executive Committee Meeting . . . . .	9
Division 14 Annual Report to Board of Directors . . . . .	17
Announcements of Interest	
Fifteenth Annual Workshop in Industrial Psychology . . . . .	19
Letter from Overseas	
The Psychometric Laboratory of the Polish Academy of Sciences . . . . .	20
Convention Program for the 1967 APA Meeting . . . . .	Center Spread
Professional Notes	
The Case Against Licensing of Psychologists . . . . .	25
The Workshop in Industrial Psychology . . . . .	30
Some Data on Publishing Patterns--Psychometrika and EPM . . . . .	36
Editor's Note . . . . .	44
Division 14 Committee Structure 1966-67 . . . . .	Inside Back Cover
Newsletter Staff 1966-67 . . . . .	Back Cover

minority groups--would be happy. The version I wrote will be found at the end of this letter. I sent my version to several persons in order to solicit their comments and suggestions.

I've received brief comments from several people, but the person making the most fundamental objections to the proposed OFCC testing order is Douglas Bray. It is obvious that Doug gave careful thought to his comments, and I find that I am in essential agreement with much of what he says. Because Bray's comments articulate so well some of the major difficulties and questions raised by such an order or decree, I should like to share them with you. Here, with his permission and somewhat paraphrased are Doug's comments:

"In the first place, the order seems to reverse the usual processes of justice in which a person is considered innocent until proven guilty. The only way of establishing the initial suggestion of guilt is the observation that a larger proportion of minority candidates are being rejected by a test. I have yet to see adequate proof that disproportionate numbers of minority candidates should not be rejected."

"Documents like this which cover general practices rather than individual instances afford grounds for witch hunts, fishing expeditions, etc. It would be far more defensible and keep with proper legal procedures to base investigations and findings on individual complaints. This is the procedure used in labor relations where grievances of wronged individuals are argued and arbitrated with due regard for specific evidence in the case."

"What would I do about discriminatory practices?"

"I would first recognize that organizations must, for their own good and the good of the economy, select some subset of all the people who apply for employment and that standardized tests are the most objective and accurate means available for making this selection."

"I would acknowledge that disaster would result from eliminating selection methods and that even those based on weak evidence must be tolerated until stronger evidence is accumulated."

"I would realize that test validation is a far more delicate and slow process than most 'experts' think."

"I would take responsibility for launching at least one fundamental and ambitious study to determine whether or not differences in the regression of job performance on aptitude scores really exist among different population subgroups."

"I would recognize a difference between deliberately discriminatory practices and those having no intent to discriminate."

"I would evaluate the total picture in regard to an employer before 'cracking down.' I would consider the proportion of minority group members on his payroll, the trend in recent years, the actions taken to encourage applications from minority members, the dates when tests or other selection devices were introduced into the employment procedure; and, of course, the rationale and data supporting their introduction. I don't believe it would be difficult to identify employers who are deliberately discriminating unfairly."

"The present document--in contrast to the above paragraph--authorizes action against employers even when they may be making vigorous and successful attempts to increase continually the employment opportunities for minority group members and even when they have a reasonable amount of data to demonstrate that employment test scores are related to meeting job requirements."

So there you have it-- some well reasoned objections to the whole concept of a testing order-based on solid thinking by Doug Bray. His comments highlight what may be a basic fallacy in the implied OFCC belief that a scientific and technical process such as test validation can be reduced to legalism and legalistic across-the-board type of thinking.

Obviously, these are issues of great import in present day society and of particular significance to many of us in Division 14. I'd like to hear your reactions, suggestions, and comments and any ideas you may have about how to cope wisely with these issues.

Marvin D. Dunnette  
July, 1967

## Suggested Revision of OFCC Testing Order:

### Background

The Office of Federal Contract Compliance is issuing the attached Order on the use of psychological tests by Government contractors in response to numerous requests for policy guidance by both administering agencies and contractors.

The Order grows out of the belief that psychological tests, when properly validated and standardized, can contribute substantially to more objective, equitable, and nondiscriminatory personnel practices--in contrast to the use of other more subjective and excessively flexible procedures such as interviews, letters of recommendation, etc. Professionally developed tests used in conjunction with other personnel functions such as training, job design, and organizational planning can help greatly in developing and maintaining an efficient work force. This Order, though addressed to the appropriate use of psychological tests, should not be construed as implying any reduced importance for these other personnel functions of training, job design, and organizational planning.

### OFCC's Primary Concern

Two matters about test usage are of major concern to us: (a) recognizing the importance of proper test usage in the utilization and conservation of human resources; and, (b) pointing out the possibility of adverse effects of improper test usage on the utilization of persons belonging to minority groups.

It has been shown that some companies have come to rely almost exclusively on tests--sometimes only a single test--as the basis for making employment or promotion decisions. When this is done, minority group candidates tend to be rejected at a disproportionately high rate because, as a group, they tend to score much lower on most tests. If the use of tests in this way results in rejecting unequal numbers of candidates who actually have equal probabilities of properly performing the job, the tests become instruments

of unfair discrimination against minority group candidates.<sup>1</sup> When such a possibility exists, it is incumbent upon a company to produce evidence that such tests are not, in fact, functioning as instruments of unfair discrimination. It is the purpose of this Order to outline the nature of the evidence which will be acceptable in sustaining such an argument.

The Order grew out of extensive discussions with test experts in both industrial and academic settings of the many complex problems and technical issues involved. Our primary objective is to promote professionally sound testing practices by providing contractors and agencies with a workable set of criteria for judging whether testing practices do or do not comply with Executive Order 11246.

### Order

1. It is directed that in those cases where the use of tests results in higher rejection rates for minority candidates than for non-minority candidates that the user produce evidence to show that the tests are not functioning as instruments of unfair discrimination. Normally, this will involve steps designed to show that the tests are valid instruments of job behavior prediction, and that they may properly be used for the purposes claimed by the user.
2. Evidence of test validity should consist of empirical data showing that the test is predictive of or significantly correlated with elements of job behavior comprising the job or jobs for which the candidate is being evaluated. Ideally, such data should be developed in the particular setting in which the test is being used, and users will be expected to do so

<sup>1</sup> It is our opinion that a decided increase in total test usage has occurred since 1963 with a particularly notable increase in the incidence of doubtful testing practices and with strong overtones of racially discriminatory effects.

whenever feasible.<sup>2</sup> However, while such data are being generated, other lines of evidence may be used to argue in favor of the test usage. For example, studies done in other units of a multi-unit organization will provide relevant information if the jobs studied are comparable (i.e., they have the same or similar task elements) to those for which the test is being used.

3. Under no circumstances will claims or testimonies made by authors or publishers be regarded as satisfactory evidence of a test's validity. Specifically ruled out are: assumptions of behavioral validity based on test titles or descriptive labels, promotional literature, advertising brochures, data bearing on the frequency of a test's usage, or other non-empirically based anecdotal accounts of testing practices or testing outcomes. This is in sharp contrast, however, to the empirical information which may occasionally be available about a test and which may be reported either in a technical test manual (developed by the author and/or publisher) or in the psychological literature. Thus, where evidence is available that a test has been shown to be predictive of or significantly correlated with job behavior elements similar to or the same as those in the jobs for which the user is using the test, it will be regarded as satisfactory evidence of the user's "good intentions" during the time required to gather additional information about the behavioral validity of the test in the particular setting in which it is being used.
4. For the purpose of satisfying this directive, empirical evidence showing a test's behavioral validity should be based on studies following generally accepted procedures for determining criterion-related, content, or construct validity as outlined in the American Psychological Association's Standards for Educational and Psychological Tests and Manuals.

<sup>2</sup>The question of "feasibility" is a difficult one, but feasibility is definitely not to be confused with convenience. It will usually be possible to gather data of a predictive, concurrent, or experimental nature to throw further light on the behavioral meaning of test scores. Often users will need to employ consultants to conduct such studies; they should be urged to do so.

5. Any or all of several validation strategies (predictive, concurrent, experimental, synthetic, etc.) may be used for developing the empirical evidence mentioned in this directive. It is highly desirable that such studies recognize the complex issues involved in predicting or in modifying human behavior and that these be taken into account in the design of sophisticated strategies of test validation. Ideally, the prediction model on which studies are based should take account of the training a candidate will receive, his prospects for personal change or development in the job, potential or possible changes in the job, and a host of other organizational considerations. However, it is recognized that not everyone is equipped to undertake such complicated research strategies. Therefore, a set of minimum standards for conducting validation research is given below:

- a. When a predictive study is undertaken, the validation sample of subjects should be representative of the normal range of candidates for the job(s) in question.
- b. When a concurrent study is undertaken, the validation sample of subjects should be reasonably representative of minority group members who are typically candidates for the job(s). Often this will require the use of statistical methods designed to estimate the effects of any restriction in the range of test scores wrought by the prior selection of subjects for the study.
- c. Administration and scoring of the test should be done under controlled and standardized conditions with proper safeguards employed to protect the security of test scores.
- d. The job behaviors and other criteria of employee adequacy on the job(s) in question must be clearly specified. Such criteria may include measures in addition to estimates of actual job proficiency, such as training time and performance, supervisory ratings, regularity of attendance, or tenure.
- e. In view of the possibility of bias inherent in subjective evaluations, supervisory ratings and job behavior observation methods must be developed with great care and the measurement results examined closely for evidence of bias.



- f. Criteria and job behavior measurements should represent major or critical job behaviors as revealed by careful job analyses.
  - g. Results should be presented in graphical and statistical form, permitting judgments of the test's usefulness for estimating a candidate's expected job behavior or his status on other criterion measures.
  - h. Data should be generated and results reported separately for members of minority and non-minority groups wherever feasible.
6. For the purpose of this directive, "test" is defined as any paper-and-pencil or performance measure used for judging qualifications for employment, job transfer, or promotion. This definition of "test" shall also apply to scored biographical data blanks, interview procedures, and other assessment procedures amenable to commonly accepted validation procedures.
7. When a contractor's use of tests (as defined above) shows a higher rejection rate for minority candidates than for non-minority candidates, his practices should be examined for possible noncompliance with the contractual requirements of Executive Order 11246. Practices should also be examined when:
- a. evidence is lacking of any significant relationships between test scores and elements of job behavior and the contractor continues, in spite of this, to use the test as a basis for personnel decisions;
  - b. the contractor is unwilling to conduct validation studies when such studies are technically feasible; or
  - c. there is evidence of differential validity patterns for minority and non-minority groups, but the contractor ignores the evidence in his use of the test or tests showing the differential patterns.

## OFFICIAL DIVISIONAL BUSINESS

### DIVISION OF INDUSTRIAL PSYCHOLOGY MINUTES OF EXECUTIVE COMMITTEE MEETING June 1-2, 1967

Present: Ash, Boulger, Bray, Dunnette, Guion, Keenan, McPherson, Meyer, Naylor, Owens, Prien, Seashore, Stagner, Thompson, Uhlaner

Absent: Bass, Brenner, Henry, Jurgensen, Mahler, Perloff, Smith, Vroom

#### Special Meeting of Voting Members:

A special meeting of the voting members of the Executive Committee, namely the officers, Council Representatives, and Members-at-Large, was held prior to the full meeting (which also includes Committee Chairmen). A few general matters of interest to Division 14, but which would not necessarily be the concern of any particular committee, were considered. One question which came up at this meeting was whether or not Division 14 should make an official statement with regard to the Order on Employment Testing which is to be issued by the Office of Federal Contract Compliance in Washington. A draft of the proposed statement was reviewed. In general, the reactions of the committee members to this draft were quite favorable, although several felt that some mention should be made in such a proposal of the value of construct validity in evaluating tests and that some recognition should be given to the conditions under which clinical interpretations of test scores would be considered legitimate. One distinct advantage recognized by committee members of having such an order issued by the government was that it would encourage the systematic validation of tests used for selection purposes. A motion was passed instructing the President to draft a statement for consideration by the membership as an official Division 14 point of view on this matter.

The XVIth International Congress of the International Association of Applied Psychology to be held in Amsterdam in 1968 was also discussed. It was decided that the Executive Committee should urge APA to take necessary actions to raise money needed to send psychologists to this meeting. A statement to this effect was drafted by Dr. Stagner and

approved by the Committee to be sent to Dr. Brayfield, the Executive Secretary of APA.

Some discussion also was focused on the problem of what could be done to stimulate more effective and consistent performance on the part of Division 14 committees. Several suggestions were made and discussed, but no formal actions were taken by the Committee on this matter.

#### Secretary-Treasurer Report:

The Division 14 treasury showed a balance of \$4,273.07 at the end of May, 1967. This amount does not reflect any significant surplus, since it includes the recently credited dues and assessments for the Division made in the last quarter of 1966. Actually, the treasury had been almost completely depleted before these newly paid dues and assessments were credited. It was suggested and approved by the members present that future financial statements prepared for Executive Committee meetings should include comparable figures for at least the past year so that Committee members could assess trends in our financial status. The balance on hand in the Cattell Fund as of May 31, 1967 was reported to be \$3,611.50.

#### Elections Report:

Nominees who confirmed their willingness to run for the following offices and serve if elected were:

##### President-elect

Bass, Bernard M.  
Guion, Robert M.  
Owens, William A.  
Seashore, Stanley E.

##### Member-at-Large of the Executive Committee

Hedberg, Raymond D.  
Porter, Lyman W.  
Thayer, Paul W.

##### Division Representatives to APA Council

Bray, Douglas W.  
Keenan, James J.  
MacKinney, Arthur C.  
Smith, Patricia C.  
Weitz, Joseph

It was pointed out that the practice of including the nomination ballot in the November issue of our newsletter, The Industrial Psychologist, has resulted in significantly fewer nominations being submitted by the membership, as compared with the returns we formerly received when a separate mailing was made of the nomination ballot. Therefore, in view of the desirability of giving as many members of the Division as possible a voice in the administration of Division business, it was decided that in future years the call for nominations would be made in a separate mailing.

#### Membership Committee:

Acting on the recommendations of the Membership Committee, the Executive Committee voted to recommend to the membership the following individuals for Member status in Division 14:

Alderfer, Clayton P.	Koechel, John W.
Altman, James W.	Lefkowitz, Joel M.
Balinsky, Benjamin	LoSciuto, Leonard A.
Barrett, Gerald V.	Maas, James B.
Carlson, Robert E.	McCoy, Robert C.
Clarke, Alan R.	Means, Robert B.
Crisera, Robert A.	Misa, Kenneth F.
Ewen, Robert B.	Mowry, Harley W.
Frye, Roland L.	Paul, William J.
Gellerman, Saul W.	Sherman, Jr., Arthur W.
Goldstein, Donald A.	Sorcher, Melvin
Goldstein, Irwin L.	Stephenson, Robert W.
Gorham, William A.	Sweeney, Edward J.
Graham, William K.	Tenopyr, Mary L.
Gruber, Alin	Thompson, David C.
Hakel, Milton D.	Vaughan, James A.
Harris, Edwin F.	Whelan, Kenneth J.
Haskell, Royal J.	Zuro, Joseph E., Lt. Col.
Joyner, Robert C.	

Only one applicant was rejected for membership, and he will be asked to reapply next year when it is expected that his qualifications will fit better the Division 14 by-law specifications.

The Executive Committee also voted to recommend to the membership the following individuals for Associate status in the Division:

Berger, Allen J.	Rosenbaum, Bernard
Crooks, Lois A.	Sharon, Barry
Drumm, Lewis R.	Shepps, R. Ronald
Lloyd, Richard C.	Stanford, Lawrence J.
Mingst, William A.	Temlock, Stephen
Moros-Guerrero, Julio	Van Matre, Nicholas H.
Ramsay, Roland T.	Weissenberg, Peter
Robbins, James E.	

Two applicants for Associate status were rejected as lacking the necessary qualifications.

#### Fellowship Committee:

The Executive Committee voted to recommend to the APA Fellowship Committee and to the Division 14 membership the following individuals for Fellow status in the Division:

England, George W.	Sawyer, Jack
Levinson, Harry	Super, Donald E.
Naylor, James C.	Tannenbaum, Arnold S.
Purcell, Theodore V.	Taylor, Calvin W.
Rodger, Alec	

Three candidates who had been nominated by Fellows in Division 14 were rejected and two candidates will be reconsidered at a latter date when it is expected that they will have met more fully the requirements for Fellow status.

The Executive Committee approved a draft of proposed revisions of the Division 14 by-laws governing requirements for Fellowship status. These had been prepared by the Fellowship Committee upon the instructions of the Executive Committee at the winter meeting. The revised by-laws make requirements for Fellowship in Division 14 consistent with the requirements for Fellowship in APA.

#### Professional Affairs Committee:

Dr. McPherson reported that his committee had formulated a recommended procedure for processing cases of suspected violation of ethical practices brought to their attention. This recommended procedure was approved by the Executive Committee. Reports also were made on six cases which

are now being investigated and another six cases which had been investigated and now were considered as closed.

Dr. McPherson also called to the attention of the Executive Committee a new APA publication entitled "Casebook on Ethical Standards of Psychologists," and recommended on behalf of his Committee that a copy of this be sent to all members of Division 14. The cost of this estimated at \$825.00. The Executive Committee voted to send this casebook to all new Members and Associates, but merely to call it to the attention of present Members and offer to furnish it to them on request at no cost. (Subsequent to this Executive Committee meeting, the APA Washington office actually sent the booklet to all Division 14 members due to a misunderstanding in communications between the Division 14 Professional Affairs Committee and the APA office. Due to the fact that Division 14 seemed to be at least in part responsible for the misunderstanding, it has subsequently been decided by the officers of the Division that we should honor the bill for this mailing which has been issued to the Division by APA.)

The Professional Affairs Committee also sought approval to prepare a supplement to the APA ethical practices casebook featuring cases Division 14 has processed, and suggested that articles be prepared on this subject for publication in such journals as Personnel, The Journal of the American Society for Training Directors, and possibly even in Nation's Business and Readers Digest. The Executive Committee approved both of these proposals and instructed the Professional Affairs Committee to implement them.

#### Workshop Committee:

Dr. Prien, Chairman, reported that the workshop program scheduled for Thursday, August 31, at the 1967 APA meetings in Washington were fully organized. There will be six sections. A brochure describing these workshops has been published and sent to the membership. Dr. Prien also distributed to members of the Executive Committee a summary report of the history of the workshops sponsored by Division 14 from 1959 through 1966.

#### Education and Training Committee:

There was much discussion of a proposed Division 14

position paper prepared by Dr. Arthur C. MacKinney of the E&T Committee regarding the Masters degree in industrial psychology. Because of considerable controversy among Executive Committee members regarding some of the recommendations made in this paper, it was decided that the paper should not be officially endorsed by the Division at this time. Rather, it was suggested that it be submitted to the American Psychologist for publication, with an accompanying statement from Dr. James Naylor, Chairman of the E&T Committee, explaining that there had been controversy among members of the Division 14 Executive Committee regarding some recommendations, and that comments by readers would be welcomed. The Executive Committee unanimously voted a special commendation to Dr. MacKinney for his excellent efforts on this article.

Dr. Naylor also reported that an article is being prepared for publication summarizing the results of a survey of Division 14 members in academic positions. The survey focused on demographic and related characteristics of this population.

#### Program Committee:

Dr. Guion, Chairman, reported that 25 hours of programming were scheduled for Division 14 at the 1967 APA meetings, including six symposia, four colloquia and invited addresses, four discussion sessions, and two paper reading sessions (seven papers). This is somewhat less than in former years due to the fact that some of the meeting time at the convention this year is being devoted to special programs commemorating the 75th anniversary of APA.

Dr. Guion also reported that fewer papers were submitted for the program this year than in previous years. A new requirement this year that fully prepared papers be submitted in order that they might be included in the Proceedings of the APA convention probably accounts for the diminished response. Some concern was expressed among Executive Committee members that the publication of papers in the Proceedings might disqualify such papers for publication in other journals. It was felt that this issue should be cleared up by APA.

#### Scientific Affairs Committee:

The major activities of this committee over the year focused on the Cattell Award program. A total of 18 entries of research proposals in this competition were received. The committee recommended that greater effort be made in the future to stimulate entries. It was also pointed out that the five-year grant made for this award is expiring and some action should be taken to get the grant renewed. Dr. Dunnette agreed to investigate this possibility.

#### Newsletter:

Dr. Boulger, the editor, reported that he is moving from Purdue to Colorado State University and plans to continue as editor. He has been assured that the clerical and related assistance needed to publish the newsletter will be provided. Dr. Boulger also called attention to the need for articles for the newsletter.

#### Public Relations Committee:

Dr. Uhlaner, Chairman, had sent to Executive Committee members a proposed draft of an updated edition of the Division 14 publication entitled "The Psychologist in Industry." He reported that the Public Relations Committee was not yet well enough satisfied with the draft to recommend it for publication at this time. The Executive Committee members concurred with this decision.

The Public Relations Committee is also formulating a program to be considered by the Executive Committee to educate and influence congressmen and other influential persons in the federal government regarding the past and potential contributions of applied behavioral scientists.

Dr. Douglas Bray reported that he has agreed to chair a special Task Force on Effective Practice of Psychology in Industry, which was set up by APA and formerly chaired by Dr. William Holmes. A report of the work of this task force is planned for approximately a year from now. It was suggested to the Public Relations Committee chairman that he might want to delay publication of "The Psychologist in Industry" until this task force report has been received.



## Special Interest Activities Committee:

Dr. Keenan, Chairman, reported that his committee has been focusing special attention on international psychology. An international program at the APA meetings was organized, for example. An informal survey was also conducted of topics on the international scene of greatest interest to Division 14 members. His committee plans to collate those talks given at the international meetings scheduled to be held in Amsterdam next year that would appear to be of most interest to Division 14 members, then to make them available to members on request.

## Ad Hoc Committee to Raise Scholarship Funds for Graduate Students in Industrial Psychology:

Dr. Meyer reported for Dr. Brenner, the Chairman, who could not attend this meeting, that the committee plans to survey members of special interest groups as a first step in identifying sources of scholarship funds. Actions will then be taken to stimulate the establishment of scholarships for industrial psychologists in training.

## A Salary Survey of Division 14 Members:

Dr. Meyer reported that he had met with Dr. Norman Vincent, who had volunteered to conduct a salary survey of Division 14 members, to formulate plans. The APA office in Washington was also consulted regarding their interest in such a survey and to solicit their suggestions regarding items of information that should be included in the survey.

## Next Meeting:

The next meeting of the Executive Committee will be held on Friday evening September 1 in connection with the annual meetings of the APA.

Respectfully submitted,

Herb Meyer

## Division 14 Annual Report to Board of Directors and Council of APA Representatives

With the election of forty-three new Members and sixteen Associates, the total membership in Division 14 became 1,019 in the fall of 1966. Three members were elected to Fellow status. Increased expenditures entailed in accelerating committee activity required a raise in the special assessment made to each member to four dollars, which was approved by the membership.

A change in requirements for membership, requiring candidates to be engaged full-time in industrial psychology, was approved at the annual meeting in September of 1966. A strong minority of the membership, however, expressed the view that this requirement was too stringent. Therefore, the Membership Committee re-studied this definition problem over the year and will recommend to the membership at the 1967 annual meeting another change in the by-laws. This change will eliminate the requirement of full-time activity in industrial psychology and will require merely that the professional activity of the applicant be related to the purposes of Division 14.

The Education and Training Committee devoted a good deal of time and effort to the development of a proposed position paper regarding the Masters degree in industrial psychology. A good deal of attention was centered on such issues as: (a) the definition of the role, function or purpose of the Masters level degree in psychology; (b) the relationship between the Masters degree and a professional degree at Ph.D. level in psychology; (c) the proliferation of special degrees, such as MBA, MEd, MMus, etc. -- should there now also be an MPsy degree?; and (d) problems of quality control. Since consensus was not reached on all of these issues, the Executive Committee decided not to endorse a formal position paper on this subject at the present time.

The E&T Committee also completed a survey of those Division 14 members in academic positions, focusing on demographic and related characteristics of this population. The results of this survey will be published in the Division 14 newsletter, The Industrial Psychologist.

The Public Relations Committee devoted a good deal of time to the revision and updating the booklet entitled "The

Psychologist in Industry," which was first published by Division 14 in 1959.

The Division 14 newsletter, first published in 1964, was given permanent status through an approval by the membership of a By-Law change designating the Newsletter Committee as a standing committee of the Division.

The third annual Cattell Award competition attracted six entries and the following awards for excellence of research design were made:

First Prize: Benjamin Schneider and C. J. Bartlett  
University of Maryland  
"Individual and Organizational Patterns of Managerial Climate Attitudes: Predictive and Construct Validity."

Honorable Mention: Dallis K. Perry  
Systems Development Corporation  
"Salary Perceptions of Professional and Scientific Personnel."

Special efforts were made by the Scientific Affairs Committee to stimulate more entries in this competition for 1967.

The Special Interests Activities Committee focused attention on providing for the interests of people working in the international field.

The Program Committee expressed the need for clarification on the part of the APA Council as to whether the publication of papers in the Proceedings of the Annual Meetings of APA would disqualify such papers for publication in other journals.

Respectfully submitted,

Herbert H. Meyer  
Secretary-Treasurer

## ANNOUNCEMENTS OF INTEREST

### Fifteenth Annual Workshop in Industrial Psychology

The Fifteenth Annual Workshop Program sponsored by Division 14 will be held Thursday, August 31 at the Willard Hotel. The various sections are:

- I Knowledge Utilization Research  
Floyd Mann and Charles Waters Center for Research  
on Utilization of Scientific Knowledge unlimited  
registration
- II Organizational Development  
John Zuckerman  
University of Southern California
- III Interdisciplinary Research and Action  
M. Scott Myers  
Texas Instrument Incorporated
- IV Selection of Minority Group Applicants  
Philip Ash - Inland Steel Co.  
Richard Barrett - Science Research Associates
- V Teaching Industrial Psychology  
William Jaynes - University of Omaha  
Alec Rodger - Birkbeck College
- VI Methods in Consumer Survey Research  
Robert Perloff  
Purdue University

Chairman of the Workshop Committee is Erich P. Prien of the University of Akron.

\* \* \* \* \*

Willard A. Kerr who taught industrial psychology for 21 years at Tulane University and Illinois Institute of Technology will become Chairman, Psychology Department, Middle Tennessee State University, Murfreesboro 37130, this September.

George W. England is leaving the University of Minnesota to join the staff of the Business of Colorado State University.

## LETTER FROM OVERSEAS

The Psychometric Laboratory of the Polish  
Academy of Sciences

Mieczyslaw Choynowski, Director of the Psychometric Laboratory of the Polish Academy of Sciences, recently sent me the first volume of Biuletyn Psychometryczny. Because of the growing interest of industrial psychologists in the work being done abroad, I have extracted the following from the Biuletyn.

The Laboratory, an independent research center under the aegis of the Polish Academy of Sciences, formally came into existence in 1958 but really began to function towards the end of 1959. Its general orientation is quantitative, objective, behaviorist, macropsychological. Its fields of interest are differential, developmental, educational, clinical, social and industrial psychology. It is also interested in the application of psychometric methods to the study of art, music and literature.

The first volume of the Biuletyn Psychometryczny contains a history of the laboratory, several reports of research (which are summarized in this note) a Technical Notes section describing "Horst's iterative method of the choice of best predictors and optimal regression weights," a Chronicle and Information section announcing seminars, and a Reviews and Notes section of about 150 pages which contains reviews of books published in the U.S., Italy, Germany, Great Britain, France, Switzerland, and Sweden.

Following are abstracts prepared by the authors of research of the Laboratory.

### 1. Achievement Need as a Motive in Managers

The aim of this study was to test McClelland's hypothesis that the main determinant of the behavior of managers in administration and industry is the need for achievement. In order to compare McClelland's results, his test was given to 144 men aged 22-47 who belonged to four occupational groups - managers, priests, teachers, and army officers.

The material used in this study was partly McClelland's, and partly the author's own.

The following facts were elicited:

1. for three types of need there were statistically significant differences between the groups, at the  $p$  .001 level for both achievement need and power need, and at the  $p$  .002 level for affiliation need;
2. of all the groups in the Polish study, the managers showed the greatest need for achievement, thus confirming McClelland's hypothesis as to the role of achievement need in that occupation;
3. our results are analogous to the American results;
4. our results differ from those obtained in Italy and Turkey, which may be due to the relatively slight involvement of these countries in industrial development;
5. the interscorer reliability of McClelland's Test is relatively high, being .89.

Alicja Kottas

### 2. Polish "Mechanical Reasoning" Test

In 1960 the author drew up three experimental forms of a test of mechanical ability, each containing 74 problems and 2 examples, based on the "Test of Mechanical Comprehension" and "Mechanical Reasoning" test by G. K. Bennett and his associates, and on D. R. Miller's "Survey of Mechanical Insight". Each form of the test was administered to approximately 900 subjects. Care was taken to see that the groups tested by each form were similar to each other as regards age, mental level, and other variables.

Random groups of 370 subjects each were taken from the total number of subjects. An item analysis was made for each form separately. With the help of Fan tables, the difficulty of the items ( $P$ ), as well as their discriminating power ( $r_{it}$ ) were determined, and two parallel final forms of the test were constructed. There is a very close parallel between these two versions, as can be seen from the very similar distributions of the coefficients  $p$  and  $r_{it}$  for the items in both forms, and from the mean coefficients for difficulty and discrimination power, which are:  $p$  .685 for A, .686 for B, while  $r_{it}$  is .456 for A and .457 for B. The reliability ( $r_{it}$ ) of the test, calculated with the Spearman-Brown formula, is almost the same for both versions, and is very high, namely .940 for form A and .941 for form B. Further work is planned on the validation of the test.

Zbigniew Dobruszek

### 3. The Usefulness of the Fisher Linear Discriminant Function in Clinical Diagnosis with the MMPI

Four groups of 50 males each - normals, neurotics, schizophrenics, and psychopaths - were tested with the author's Polish translation of the MMPI. For every possible pair of groups Fisher's linear discriminant function was derived and validated on four new groups of 50 males each. The differences between group means in terms of discriminant function were in both samples in five cases significant beyond .001 level (F test) and in one case (schizophrenics - psychopaths) beyond .01 level. In simple dichotomous classification with every function from 75 to 86 per cent correct assignments in original sample and from 67 to 78 per cent correct assignments in validation sample were obtained. In each group comparisons with three remaining groups resulted in 78 to 85 per cent correct classifications in original sample and in 67 to 77 per cent correct classifications in validation sample.

When for every member of each group all three functions relating to that group were compared and assignments made to that group for which at least two functions agreed, from 80 to 90 per cent and from 66 to 86 per cent correct classifications in both samples were obtained. Finally, when for every subject belonging to one of three clinical groups three functions relating only to those groups were used, and assignments were again made to that group for which at least two functions agreed, the percentages of correct classifications ranged from 64 to 72 and from 54 to 60 per cent in original and validation samples, respectively. All these percentages are significant on at least .001 level.  
Mieczyslaw Choynowski

### 4. A Reading Readiness Test as a Tool for Predicting Success in Reading

The article is a report of work done on the Reading Readiness Test which is the Polish adaptation of the 1951 Lee-Clark Reading Readiness Test.

The author investigated the predictive value of the test, as well as its reliability and validity. The subjects were 1286 children beginning school in 1962. They were taken from 16 schools in Warsaw.

## Convention Program

### DIVISION OF INDUSTRIAL PSYCHOLOGY AMERICAN PSYCHOLOGICAL ASSOCIATION

#### PROGRAM COMMITTEE

Robert Guion, Chn.  
Lyman W. Porter  
Lewis Albright  
James J. Keenan  
Felix Lopez  
Melvin R. Marks  
John B. Miner  
Lyman W. Porter

Shoreham Hotel  
Washington, D. C.  
September 1-4, 1967

The material for the statistical analysis was taken at random from the sample as a whole.

The reliability of the test was calculated by administering the test a second time to 120 children after an interval of three days. The validity was tested on the basis of two criteria: school marks at the end of Class I, and the results of a silent reading test (adapted from the Metropolitan Achievement Tests, Primary Battery, 1959), with which these same children were tested in Class II. The predictive value was calculated by the method of multiple regression using the second criterion as basis. The validity of these predictions was tested on the validation group.

The results obtained lead to the following conclusions:

1. the test is a useful practical tool, since taken as a whole it has sufficient reliability (.88), and, despite its not too high validity (.56), it enables one to predict a child's success in reading, especially with regard to children with the best and the worst results;

2. particular parts of the test have too little reliability and validity to be used separately;

3. since the test requires no auxiliary material, and takes only about 30 minutes to administer, it may be widely used for rapid group testing;

4. children with low scores (with a sten score below 4) should be examined individually;

5. the test may be used to determine the lower age boundary of reading readiness.

Barbara Markowska

#### 5. Inter-rater Reliability of Ratings on Piano Playing

A study was made of the inter-rater reliability of music experts' ratings of piano playing.

The ratings made by the jury of an international competition for piano were subjected to statistical analysis. The correlation coefficient  $W$ , Kendall's reliability coefficient, was used to measure the agreement between the jurors.

It was found that inter-rater reliability was statistically significant at the  $p < .001$  level, but that the average correlation between the scores given by different jurors was .596, which explains only a little more than a third of the total variance of the scores. It may be concluded that when



music experts acting as jurors at a competition judge different players' interpretations of traditional piano music, they generally adopt the same criteria. These criteria, however, explain barely a third of the total variance of scores.

Maria Manturzevska

6. Psychological Structure of Football Teams as Measured with the "Group Dimensions Questionnaire" by Hemphill and Westie

40 football teams of the Polish first, second and third leagues were tested with the Polish translation of the "Group Dimensions Questionnaire" by Hemphill and Westie which measures autonomy, potency, flexibility (here reversed and called formalism), homogeneity, control, stability (here reversed and called fluidity), polarization, permeability, viscosity, stratification, participation, hedonic tone, and intimacy.

The responses of 493 team members yielded raw scores for each of the 13 dimensions. They were expressed as sten scores and then averaged for each team. The differences between the means of the first and third leagues were significant for potency ( $P < .10$ ), control and fluidity ( $P < .05$ ), and participation ( $P < .025$ ). Three rank correlations between the group dimensions and success in the yearly football competition were significant on the .05 and one on the .01 level, namely permeability (-.39, corrected for unreliability of the test -.45), fluidity (.37, corrected .47), control (.44, corrected .58), and participation (.48 corrected .59). The results point to the role which psychological group structure possibly plays in football.

Mieczysław Choynowski and Nanusz Zarek

A report in English is being prepared on the work of the Laboratory in the period 1959-1965 and will be sent free of charge to anyone interested. For a copy, please write:

Dr. Mieczysław Choynowski  
Pracownia Psychometryczna  
Polska Akademia Nauk  
Warszawa, PKiN

## PROFESSIONAL NOTES

### The Case Against Licensing of Psychologists<sup>1</sup>

Edwin A. Locke, American Institutes for Research  
Silver Spring, Maryland

The past decade has seen an accelerating trend toward the passage of state laws requiring the licensing of psychologists who offer services to the public for a fee. Although the effectiveness of specific certification procedures has often been discussed, (e.g., TIP, Nov., 1966), the question of whether licensing of psychologists should exist at all has rarely been considered.

Laws must be justified on both moral and practical grounds. The moral defense of licensing usually rests on the claim that it is "in the public interest". The practical defense rests on the belief that licensing will keep unscrupulous practitioners from fleecing the public. In this article, I shall dispute these claims and argue that licensing of psychologists is both immoral and impractical.

Morally, licensing laws are a contradiction in terms. They declare that "in the public interest" one part of the public (the psychologists) must be sacrificed for the alleged benefit of another part of the public (the non-psychologists). By sacrifice in this context is meant the abridgment of the right to trade (see Rand, 1964, for the wider principles involved). It is important to realize that licensing laws are not directed against the actual commission of fraud but against the right to offer a service. In abridging this right, such laws actually sacrifice two minorities: (1) those psychologists who might wish to offer services but have no license; and (2) those non-psychologists who might wish to use the services of an unlicensed practitioner. The former are deprived of potential income; the latter of potential services.

It might be argued that licensing laws are justified because only psychologists who could fulfill the certification

---

<sup>1</sup>This paper is based on an article written originally for the Virginia Law Weekly (September 22, 1966).

requirements could be competent to perform psychological services. If so, offering such services without being certified is fraudulent by definition. But by what means can any group of psychologists or board of examiners know this in advance? Only by declaring themselves omniscient and their procedures infallible could they claim to know that only a licensed practitioner could perform a valued psychological service for another person.

Let us now consider the practical consequences of licensing. It is my belief that licensing will achieve the exact opposite of its alleged purpose of protecting the public from dishonest and incompetent practitioners. First, certification represents, both legally and psychologically, an implicit guarantee on the part of the state of the competence and scrupulousness of a psychologist. The fact that licensing is coercive implies that its purpose is to protect the public from certain and definite harm and that such protection can in fact be achieved. Further, it implies that members of the public need not use their own independent judgment in the matter--that thinking on their part is not required because it is being done for them by the state.

Lest the latter claim be considered far-fetched, let me quote some results of a study conducted of public attitudes toward smoking and cigarette advertising that were summarized in Consumer Reports (October, 1964, p. 466). The Federal Trade Commission is quoted as arguing:

The members of the consuming public know that radio and television are regulated by the government. . . . When they witness the continued and unrestricted dissemination of cigarette advertising on radio and television and in other media, their natural, instinctive reaction is that the danger of cigarette smoking cannot be an established fact--else government would take steps to restrict cigarette advertising . . .

In support of this view, the FTC quotes the testimony of Dr. Saxon Graham: "In my own discussions with smokers, I have frequently heard the statement that 'Smoking cannot be too bad for you, or the government would not let them advertise on the television.'" The implication of these statements is clear: people can be convinced that they do not have to think for themselves.

Licensing is particularly unjust because the guarantee of competence which it implies cannot be made in good faith. An individual's competence and honesty in his work cannot be guaranteed by anyone, and it is misleading to the public to imply that it can. The knowledge that coercive licensing exists will only give people a false sense of security and make them less able and willing to judge the actual competence of practitioners. (Licensing, incidentally, has not eliminated incompetence, dishonesty or fraud in law, medicine or any other profession).

A second effect of licensing will be to undercut the value of the earned reputations of established practitioners (see Greenspan, 1963, for the general principles involved here). In a free market, a psychologist gains his reputation from the quality of the services he performs in real life situations. If he does good work, his reputation is enhanced. If he performs poorly, incompetently or dishonestly, his reputation is diminished or destroyed. The achievement of a reputation requires long years of competent service and hard work. Such reputations are earned by performance, not by the passing of a two or three hour exam and going to the right college. The introduction of licensing, however, shortcuts this procedure by implying that proof of competence has already been demonstrated by those who fulfill certification requirements. Thus the newcomer is endowed with an un-earned reputation--a reputation not based on his real life performance. It is not difficult to see that the one who pays the price (competitively) in such a case is the psychologist of proven ability.

A third effect that must be considered concerns the fate of the man of unusual independence and ability--the man who does not go through one of the standard Ph.D. programs or accept all the beliefs and practices of his day--the man who develops radically new ideas and new techniques--and is right! What happens to the Frank Lloyd Wright of psychology? To the degree that he deviates from current theories and practices, he will probably be rejected by the profession. If he chooses to offer his services to the public anyway, he will be fined or jailed! To prevent the possibility of this occurring, licensing boards would not only have to break their own rules in unusual cases (e.g., by overlooking the individual's educational background), they would have to know the validity of all new ideas and techniques in advance. They would have to be omniscient and infallible.

A final note on the problem of how individuals should be protected against unscrupulous practitioners. The basic legal protection against such people should come from laws against fraud--laws directed against crimes that have been committed, not against those that might be committed. Existing fraud laws could be enlarged or modified as needed to deal with the problems of specific professions.

Legal protection, though necessary in any civilized society, is not sufficient in itself to insure the competence of psychologists. The most important market mechanism for protecting the individual is competition for reputation. However, state and national psychological associations could supplement this by educating the public as to how to go about judging the qualifications of a psychologist and the quality of his services. For instance, membership in state or national associations could be suggested as one possible criterion of qualification, but it would not carry the implication of guaranteed competence inherent in coercive licensing. In addition the associations could publish pamphlets describing how to go about selecting various types of psychological practitioners, what to expect from them, and what kinds of practices to be wary of (e.g., mystical cults, demands for large payments in advance, mysterious gadgets with no specifiable function, 5-minute personality tests). Free telephone advisory service could also be provided by local associations.

Finally psychologists could perform an invaluable public service by teaching their own students the importance of thinking. This requires the recognition that: (1) man is born tabula rasa and therefore must acquire the knowledge his life requires; (2) that thinking is his means of acquiring it; that his mind is his tool of survival; and (3) that thinking is a volitional process, a process which man can initiate, direct and control by choice (Branden, 1966a, b). A student confronted with the claim that) "In practice, all . . . ways of changing a man's mind reduce to manipulating his environment." (Skinner, 1964, p. 92), will have little incentive to expend the effort that thinking requires.

The psychological premise that underlies the alleged need for licensing laws is the belief that man's mind is impotent, that man is incapable of judging the facts of reality for himself and of drawing valid conclusions. It would be ironic indeed if this belief became so widely accepted, thanks to

psychologists, that most people did renounce independent thinking. If that day comes, licensing laws will not save men from the consequences.

#### References

- Branden, N. The Objectivist theory of volition, The Objectivist, 1966, 5, No. 1, 7-12 (a).  
Branden, N. The Objectivist theory of volition (part II), The Objectivist, 1966, 5, No. 2; 6-14. (b).  
Greenspan, A. The assault on integrity, The Objectivist Newsletter, 1963, 2, 31-32.  
Rand, Ayn. Man's rights, in Ayn Rand, The Virtue of Selfishness, New York: Signet, 1964, pp. 92-100.  
Skinner, B. F. Behaviorism at fifty, in T. W. Wann (Ed.) Behaviorism and phenomenology, Chicago, Univ. of Chicago Press, 1964, pp. 79-97.

# THE WORKSHOP IN INDUSTRIAL PSYCHOLOGY

An Overview of the Workshop  
1959 through 1966

Erich P. Prien  
The University of Akron

Since 1953 The Workshop in Industrial Psychology has been held in conjunction with the annual APA conventions. In 1959 Philip Ash<sup>1</sup> summarized the meetings of 1953 through 1958. His summary stated that, "Overall, the Industrial Psychology Workshops seem to have been satisfying and profitable experiences for the participants. The workshop generally provides an occasion for an intensive, sophisticated discussion and exploration of an area of major concern to industrial psychologists that is not available through the typical APA symposiums or, indeed, through conference and workshop programs sponsored by nonprofessional organizations and associations."

The present report is essentially a continuation of the 1959 article by Ash. It describes and summarizes the workshop meetings from 1959 through 1966. Emphasis is placed upon the programs of those meetings, results of the programs, and general trends of policy.

## The Program

The workshops typically are held at hotels or private clubs, and there are several sections covering different topics which participants may attend for the day. The number of sections has increased gradually from three to six during the years 1958 through 1966. The average number of participants per section and total participation have also increased slightly. Different locations, though, appear to influence registrations so that average attendance figures are deceiving (See Table 1). Participant evaluations during this period suggested the reduction of registration from 25 to 20 per session and further, to experiment with both smaller (15) and larger groups (unlimited registration). From 1959 through 1964 the charges are \$40.00 for APA members and \$60.00 for non-members. In 1965 the charges were reduced to \$30.00 and \$40.00. Table 2 lists the discussion topics, and leaders, by section, along with the locations of the workshops from 1959 through 1966.

<sup>1</sup> Ash, P. The small workshop in industrial psychology. Amer. Psychologist, 1959, 14, 529-532.

TABLE 1

		Registra- tion	Number of Sessions	% APA Attendance (x100)	% Div. 14 Mem- bership
1959	Cincinnati	63	3	90	8.8
1960	Chicago	70	4	74	9.5
1961	New York City	NA	5	NA	NA
1962	St. Louis	56	4	66	7.2
1963	Philadelphia	84	5	81	10.2
1964	Los Angeles	57	5	59	6.7
1965	Chicago	105	5	85	11.2
1966	New York City	150	6	87	15.3

TABLE 2

## Seventh Annual Workshop

### 1959 Cincinnati

Section I	Selection and Development of Employees Marvin D. Dunnette and William Owens
Section II	Organization Design and Development Raymond A. Katzell
Section III	Application of Psychological Theory and Technique to Industrial Training William McGehee

## Eighth Annual Workshop

### 1960 Chicago

Section I	Motivational Approach to a Newer Theory of Organizational Management Rensis Likert
Section II	Sensitivity Training Bernard Bass
Section III	Criterion Development Leonard Ferguson
Section IV	Problems and Practices in Consumer Moti- vation Research Burleigh Gardner

### Ninth Annual Workshop

#### 1961 New York City

- Section I Basic Psychological Research in Industry  
Leon Festinger
- Section II Personality Testing in Industrial Practice  
Harrison Gough
- Section III Organizational Theory and Analysis  
Chris Argysis
- Section IV Creativity: Theoretical Formulations and  
Research Results  
Frank Barron
- Section V Sensitivity Training: A Personal Approach  
to Management Development  
Irving Weschler and Fred Massarik

### Tenth Annual Workshop

#### 1962 St. Louis

- Section I Psychological Research and Industrial  
Training  
William McGehee
- Section II Organization Theory and the Psychologist  
Mason Haire
- Section III Industrial Uses of Biographical Data  
William A. Owens
- Section IV Psychological Assessment of Managerial  
and Executive Level Personnel  
Edward Nevis

### Eleventh Annual Workshop

#### 1963 Philadelphia

- Section I Motivation in Management  
Robert Guest and Frederick Herzberg
- Section II The Counseling of Key Personnel by a  
Psychologist  
Edward M. Glaser
- Section III Programmed Instruction  
David J. Klaus
- Section IV Application of Electronic Data Processing  
Paul F. Ross and Charles F. Wrigley
- Section V Planning and Implementing Change in a  
Large Organization  
Walter R. Mahler

### Twelfth Annual Meeting

#### 1964 Los Angeles

- Section I Communication Industry: Research and  
Theory  
Alex Bavelas
- Section II In-company Use of Sensitivity/Laboratory  
Training  
Paul Buchanan
- Section III The Role of the Industrial Psychologist as  
Administrator  
Ralph Canter
- Section IV New Developments in Personnel Selection  
and Placement  
Edwin Ghiselli
- Section V Mental Health in Industry  
Harry Levinson

### Thirteenth Annual Workshop

#### 1965 Chicago

- Section I Organizational Change  
Warren G. Bennis and Floyd C. Mann
- Section II Criterion Measurement  
Melvin R. Marks
- Section III Clinical Techniques in Industry  
Edwin C. Nevis
- Section IV Personnel Research Applications of Com-  
puters  
Wallace Knetz
- Section V Techniques in Industrial Measurement  
Edwin R. Henry and Paul C. Baker

### Fourteenth Annual Workshop

#### 1966 New York City

- Section I Organization Psychology  
Bernard Bass and Basil Georgopoulos
- Section II Psychological Testing  
Robert M. Guion and Michael Amrine
- Section III Attitude Measurement  
Lorne M. Kendall
- Section IV Management Selection and Utilization  
Edwin R. Henry and Paul C. Baker
- Section V Psychology in International Corporations  
Saul W. Gellerman
- Section VI Criterion Measurement  
Robert Wherry



## Results of the Program

Shortly after the workshops, evaluation questionnaires were sent to all of the participants. The data collected over the years showed some general trends similar to those reported by Ash.

As was done in 1953 through 1958, the participants were asked to rate their particular sections as "good", "fair", or "poor", or the equivalents of these categories. Throughout the years of 1959 to 1966 an average of 62.4% of the participants who answered rated the workshops as "good". There has been a gradual increase in the percentage of "good" ratings with the all-time high of 86% in 1965.

The participants were also asked if they would attend the workshop in the future if they were invited. They could answer this by marking "yes", "maybe", or "no" on the questionnaire. An average of 68.2% of the answering participants answered "yes" to this question while most of the remaining participants answered "maybe", and very few responded negative. This percentage of "yes" responses also increased gradually from 1959 through 1966.

On the 1966 questionnaire, it was asked if it would be worthwhile to have a follow-up session a few months after the regular workshops. The average response (mode, in this case) showed that it would be desirable to have a follow-up session for one day about six months after the regular workshop, and that most participants would travel up to 500 miles to attend such a session. However, the maximum probable attendance at any one location for an individual workshop group was only eight participants. Geographic dispersion of participants thus seems to prevent any systematic followings.

The respondents were also asked to make suggestions and comments regarding the workshop sections so that future workshops could be planned with these in consideration. A great deal of the comments made concerned the leaders of the sections. It appears in general that the leader of the discussion sections either makes or breaks it. Ash came to the same conclusion in surveying the information collected for the workshops of 1953 through 1958. In many cases where the leader was regarded as being poor, it was because he did not structure the discussion enough. In the recent

workshops, however, leaders were seldom criticized for lack of structuring the section or for not being adequately prepared. In the recent years there also appeared to be fewer incidents of someone monopolizing the section.

The suggestions for improvement of the workshops were primarily concerned with the types of leadership of the sections and with ways in which the discussions could be run in the future. Other suggestions dealt with more specific areas such as the use of visual aids (usually recommended), the type of participants who attended (promotion is now limited to Division 14 members), the topic of discussion, and chances for informal discussion.

The responsibility of the Workshop Committee is to conduct a program which will meet the needs of Division 14 members. These needs have been predominantly defined in terms of overcoming obsolescence and retraining in the conventional areas of industrial psychology. It seems likely though that in the future the goals of the Committee will be broadened to include topics and the focus consistent with the current and anticipated changes in the profession. While continuous evaluation of the programs and experimentation with different procedures appears to have resulted in improvement over the years the format considered optimum today may be obsolete in the near future.

## How To Build a Better Mousetrap

Purdue University will teach freshman football players their blocking assignments with programmed learning material prepared as an assignment in Evelyn Perloff's Psychology of Training class by a member of this year's Rose Bowl Champions.

Some Data on Publishing Patterns  
In Journals of Interest to Division 14 Members:

II. Psychometrika and Educational and  
Psychological Measurement

James C. Naylor, Terry L. Dickinson and Ann Lavee

In a previous TIP note (TIP, Volume 2, No. 2, p. 40) we presented data on publishing patterns in the Journal of Applied Psychology and Personnel Psychology for the period 1950-1964. In this article we are presenting similar data on two other journals which we feel are of interest to members of Division 14, viz., Psychometrika and Educational and Psychological Measurement (EPM). As in the earlier article, our attention was addressed to the following three specific questions:

- (1) Who are the more prolific publishers in each journal?
- (2) Where are those who are publishing located or affiliated?
- (3) Where did those who are publishing receive their graduate training?

Also, as was the case with the other two journals, no attempt has been made to "adjust" our data for any of the numerous biasing factors which presumably may have some influence on these data, such as the number of Ph.D.'s produced by various schools, etc. Thus, while you are encouraged to enjoy the data, we also suggest that it be used cautiously as "evidence" in support of argument in which you might become involved.

Psychometrika

In Table 1 we have listed the twenty six most frequent publishers in Psychometrika during the 1950-64 period. The large number of authors having four publications during this period led to the size of the list reaching twenty six in number.

The list certainly indicates that National reputation and publication frequency are highly related variables, as few would deny that names like Lord, Gulliksen, Gibson, Guttman, Horst, Kaiser, Tucker, etc., belong in a list of the most outstanding men in their field. Certainly the list reads like a "Who's Who" in mathematical psychology.

What happens when we look at where Psychometrika publishers received their graduate training? Table 2 presents a tally of the degree granting institutions for Psychometrika publishers during the years 1950-1964.

The outstanding aspect of these data is the tremendous productivity of University of Chicago graduates. Graduates of Chicago published nearly as many articles during the 1950-1964 period as did the graduates of the next three schools combined! Indeed, it seems to be Chicago all by itself, then Princeton, and then the rest of the world!

Our final tabulation, shown in Table 3, gives an indication of where the people who are publishing are located or affiliated. As before, we tabulated this two ways. First, by giving credit to an institution only once each article (regardless of the number of co-authors listing the same affiliation and second, counting each institution once for every co-author who listed it.

Once more we find that a particular institution, this time ETS, completely dominates its competitors. In fact, although Princeton is listed as third on the list, eighteen of the twenty four Princeton citations were listed jointly with ETS! Thus, it is again that we have a situation of one institution completely overshadowing all others (ETS), followed by a second institution (Illinois) that is distinctly above the remaining ones but not close to the leader and finally the rest of the pack.

Educational and Psychological Measurement

Turning now to an examination of EPM publishing patterns, we see in Table 4 the authors who have published most frequently in this journal. There is not a great deal of overlap between the authors who publish frequently in EPM and those who publish frequently in Psychometrika. Only five names are common to both lists (Lord, Messick, Cureton, A. Edwards, and Horst).

We should point out that in recent years EPM has included sections for both validity studies and for papers on computer programs of interest to psychologists. In our tally we felt it inappropriate to count papers in these sections as publications. Thus, they are not included in our data. Parenthetically we might add that a check showed that little

change in the rank order in Table 4 would take place had we done so.

Table 5 gives the names of those institutions whose graduates have published most frequently in EPM.

Southern California and Columbia lead the list, followed by Ohio State, Minnesota and Chicago in that order. If we take the top ten in this list and compare it with the corresponding list for Psychometrika, we find a tremendous overlap. Seven of the top ten schools are on both lists - Southern California, Columbia, Ohio State, Minnesota, Chicago, Michigan and Illinois. This would indicate, at least to us, that these schools seem to be the ones responsible for producing the lion's share of quantitatively oriented psychologists.

Our last table, Table 6, tells us which institutions, in terms of their staff, produce the most EPM articles.

Again, looking at this list and comparing it with the Table 3 data on Psychometrika, we find the top two institutions are the same, namely, ETS and Illinois in that order. However, of the top ten schools on each list only four institutions share honors on both lists. The two besides those just mentioned are University of California at Berkeley and Chicago.

As was the case in our previous article we make no attempt to draw any grand conclusions from the data we have presented. We are not even sure that any such conclusions are possible. Certainly there are hints about the structure and dynamics of quantitative psychology in this country today that are rather interesting to us, particularly the firm pattern of where these people are produced. We might add, however, that the recent appearance of the new Journal of Mathematical Psychology may lead to a rather sharp change over the next decade over the pattern presented here.

Table 1

Most Frequent Psychometrika Publishers During 1950-1964, Inclusive

Names	50-4	55-9	60-4	Total
1. Lord, F. M.	3	8	6	17
2. Gulliksen, H.	7	5	4	16
3. Gibson, W. A.	4	3	7	14
4. Guttman, L.	5	6	-	11
5. Horst, P.	6	3	2	11
6. Kaiser, H. F.	-	3	6	9
7. Tucker, L. R.	1	6	2	9
8. Cureton, E. E.	3	5	-	8
9. Green, B. F., Jr.	4	1	2	7
10. Brogden, H. E.	2	3	1	6
11. Guilford, J. P.	5	-	1	6
12. Mosteller, F.	4	1	1	6
13. Fruchter, B.	2	1	2	5
14. Messick, S. J.	-	4	1	5
15. Bock, D. R.	-	3	1	4
16. Coombs, C. H.	1	1	2	4
17. Edwards, A. L.	2	1	1	4
18. DuBois, P.	2	-	2	4
19. Edwards, A. L.	2	1	1	4
20. Harris, C. W.	-	3	1	4
21. Katz, L.	2	2	-	4
22. Keats, J. A.	-	2	2	4
23. Lubin, A.	2	2	-	4
24. Luce, R. D.	1	1	2	4
25. McGill, W. J.	2	1	1	4
26. Ross, J.	-	-	4	4

Table 2

Number of Psychometrika Articles by Graduates of Various Institutions During 1950-1964 Period

Degree Granting Institution	50-4	55-9	60-4	Total
1. Chicago	34	32	22	88
2. Princeton	16	17	13	46
3. Minnesota	7	10	6	23
4. Columbia	10	6	6	22
5. Stanford	2	10	9	21
6. U. of Calif., Berkeley	5	9	7	21
7. Ohio State	10	5	3	18
8. Southern California	14	1	3	18
9. Illinois	7	5	5	17
10. Michigan	1	7	9	17
11. Harvard	9	4	3	16
12. London	5	3	1	9
13. Yale	3	2	4	9
14. Cornell	5	1	2	8
15. Indiana	-	3	5	8
16. Purdue	3	3	2	8
17. Northwestern	3	2	1	6
18. Texas	-	2	4	6
19. N.Y.U.	3	-	2	5
20. M.I.T.	1	1	2	4

Table 3

Publication Frequency in Psychometrika by  
Individuals at Various Institutions

Institution Cited	ONCE/ARTICLE				AS IT OCCURS*			
	50-4	55-9	66-4	T	50-4	55-9	60-4	T
1. **E.T.S.	24	26	15	65	25	28	15	68
2. Illinois	9	5	11	25	13	6	13	32
3. **Princeton	6	14	4	24	6	17	4	27
4. Harvard	7	4	6	17	9	4	6	19
5. MIT	5	5	7	17	6	6	7	19
6. U. of Calif., Berkeley	2	8	7	17	2	8	7	17
7. Michigan	5	5	6	16	7	6	8	21
8. North Carolina	8	1	6	15	9	1	6	16
9. Chicago	5	8	1	14	6	9	1	16
10. Washington	5	5	3	13	8	7	3	18
11. Southern California	7	-	4	11	9	-	5	14
12. Columbia	5	2	3	10	5	4	3	12
13. Israel	5	5	-	10	5	5	-	10
Inst. of App'l Soc. Res.								
14. Stanford	1	2	7	10	1	2	7	10
15. Indiana	-	5	4	9	-	6	4	10
16. Michigan State	3	4	1	8	3	5	1	9
17. Minnesota	3	2	3	8	3	2	3	8
18. Tennessee	3	5	-	8	3	5	-	8
19. Wisconsin	-	2	5	7	-	2	6	8
20. Bell Tel. Labs.	-	1	5	6	-	1	5	6
21. Iowa	1	2	3	6	1	2	3	6

\*In case of multiple authorship, "ONCE/ARTICLE" means that an institution was counted once regardless of number of authors from that institution. The "AS IT OCCURS" tally gave credit for each person listed.

\*\*Double Citations  
of Princeton/ETS      5    10    3   18      6    11    3   20

Table 4

Most Frequently Publishing Authors in Educational and  
Psychological Measurement during 1950-1964 Period

Author	50-4	55-9	60-4	Total
1. Michael, W. B.	14	11	6	31
2. Comrey, A. L.	1	14	7	22
3. McQuitty	4	4	10	18
4. Lord, F. M.	1	9	5	15
5. Guilford, J. P.	5	4	4	13
6. Perry, N. C.	9	2	1	12
7. Messick, S.	-	4	5	9
8. Cureton, E. E.	4	1	3	8
9. Ebel, R. L.	6	1	1	8
10. Jackson, D. N.	-	1	7	8
11. Bass, B. M.	4	2	1	7
12. Bendig, A. W.	3	4	-	7
13. Christensen, P. R.	2	3	2	7
14. Hertzka, A. F.	7	-	-	7
15. Jones, R. A.	-	4	3	7
16. Ryans, D. G.	4	3	-	7
17. Cronbach, L. J.	2	2	2	6
18. Edwards, A. L.	2	-	4	6
19. French, J. W.	3	1	2	6
20. Horst, P.	4	1	1	6
21. Lorge, I.	6	-	-	6
22. Nunnally, J. C.	-	3	3	6
23. Schutz, R. E.	-	2	4	6
24. Zimmerman, W. S.	4	1	1	6

Table 5

## Number of EPM Articles by Graduates of Various Institutions

Degree Granting Institution	50-4	55-9	60-4	Total
1. Southern California	52	35	25	112
2. Columbia	50	26	18	94
3. Ohio State	35	17	29	81
4. Minnesota	36	18	18	72
5. Chicago	22	19	20	61
6. Princeton	14	16	15	45
7. Michigan	12	20	13	45
8. Illinois	11	20	13	44
9. Syracuse	17	9	5	31
10. Purdue	11	8	16	35
11. Iowa	14	9	6	29
12. U. of Calif., Berkeley	6	12	10	28
13. N.Y.U.	11	6	5	22
14. Pittsburgh	11	8	4	23
15. Yale	6	9	4	19
16. Penn St.	8	6	5	19
17. Stanford	12	3	6	21
18. Toronto	4	4	10	18
19. Harvard	4	6	8	18
20. UCLA	4	6	6	16
21. Cornell	7	3	6	16
22. London	3	6	6	15
23. Texas	3	1	11	15
24. Northwestern	5	3	5	13
25. Washington	-	2	8	10

Table 6

## Publication Frequency in EPM by Individuals at Various Institutions

Institutions Cited	ONCE/ARTICLE				AS IT OCCURS*			
	50-4	55-9	60-4	T	50-4	55-9	60-4	T
1. E.T.S.	20	20	19	59	21	24	20	65
2. Illinois	19	20	17	56	24	28	21	73
3. UCLA	6	20	14	40	7	22	18	47
4. Southern California	17	16	9	42	27	28	20	75
5. Minnesota	15	4	10	29	21	4	12	37
6. Michigan State	6	9	15	30	8	8	15	31
7. U. of Calif., Berkeley	6	11	5	22	7	11	5	23
8. V.A. Hospitals	6	9	4	19	6	13	7	26
9. Chicago	4	6	8	18	5	8	10	23
10. Pittsburgh	9	5	4	18	13	5	4	22
11. Michigan	9	5	1	15	10	7	1	18
12. Washington	5	3	6	14	6	3	8	17
13. Ohio State	6	2	5	13	8	2	7	17
14. A.I.R.	6	2	5	13	7	3	5	15
15. Columbia	8	2	2	12	13	2	3	18
16. Texas	7	3	3	13	9	3	8	20
17. Duke	3	6	2	11	3	9	2	14
18. Purdue	3	4	7	14	5	8	11	24
19. Iowa	6	1	3	10	6	1	3	10
20. N.Y.U.	2	5	3	10	2	7	4	13



## EDITOR'S NOTE

I have been invited to attend an informal meeting of APA Newsletter Editors at the Annual Convention "to explore common problems and concerns with each other and the Central Office with a view toward smoother, more efficient, and effective communication via the newsletters." I would appreciate receiving reactions to TIP and suggestions for its improvement from the readers so that I could pass them on to the other editors at this meeting.

I would also appreciate receiving reactions to, comment about, or "the other side" of Marv Dunnette's Presidential Message and Ed Locke's "The Case Against Licensing of Psychologists."

Incidentally, for those interested in "equal opportunity" there are two reports available from the Superintendent of Documents of the U.S. Government Printing Office that are very pertinent: The U.S. Office of Education's Equality of Educational Opportunity Survey and the U.S. Commission on Civil Rights' Racial Isolation in the Public Schools. The price for the first is \$4.25 plus postage and the second \$2 plus postage.

And there is a current research project being carried on in Pittsburgh and New Orleans by the USES and the Urban League which will attempt "to determine whether occupational tests accurately reflect the ability of Negroes to become successful employees." Perhaps research such as this will help us answer some of the questions intrinsic to the OFCC Testing Order.

Since this is the last edition that will be published at Purdue I would like to express my appreciation to members of the Psychology Department who have been helpful and encouraging to me both in this job and in my other duties. I will be in Lafayette until September, and after that date my address will be:

TIP, The Industrial Psychologist  
Colorado State University--Psychology  
Fort Collins, Colorado 80521

John R. Boulger

## APA Division 14 Executive Committee & Committee Chairmen 1966-67

### EXECUTIVE COMMITTEE

President  
Marvin Dunnette

President-Elect  
Philip Ash

Past-President  
Ross Stagner

Secretary-Treasurer  
Herbert H. Meyer

Representatives of APA Council  
William A. Owens, Jr. (1964-67)  
Stanley E. Seashore (1964-67)  
Bernard Bass (1965-67)  
Herbert H. Meyer (1966-69)

Members at Large  
Walter R. Mahler (1964-67)  
Robert Perloff (1965-68)  
Clifford E. Jurgensen (1966-69)

Newsletter Editor  
John R. Boulger

### COMMITTEE MEMBERS

Education and Training  
James C. Naylor, Chn.  
C. J. Bartlett  
George W. England  
Edward E. Lawler  
A. C. MacKinney  
Howard Maher  
Ernest J. McCormick

Scientific Affairs  
Patricia C. Smith, Chn.  
Robert Glaser  
Frederick I. Herzberg  
Wayne E. Kirchner  
Luigi Petruccio  
Harry C. Triandis  
Karl E. Weick  
Joseph Weitz

Special Interests  
James J. Keenan, Chn.  
John D. Drake  
Eugene H. Jacobson

Program  
Robert Guion, Chn.  
Lyman W. Porter,  
Chn. 1967-68  
Lewis Albright  
James J. Keenan  
Felix Lopez  
Melvin R. Marks  
John B. Miner  
Lyman W. Porter

Fellowship  
Douglas Bray, Chn.  
B. von Haller Gilmer  
Clifford E. Jurgensen  
Edward A. Rundquist

Public Relations  
J. E. Uhlaner, Chn.  
John Butler  
Arthur J. Drucker  
Mortimer Feinberg  
Herbert S. Kamin, Jr.  
Abraham Korman  
Neil Miller  
Frank Uhlmann

Membership  
Victor H. Vroom, Chn.  
Brent Baxter  
Albert S. Glickman  
Robert Guion  
Seymour Levy  
Donald Taylor  
Albert S. Thompson

Workshop  
Erich P. Prien, Chn.  
Ralph R. Canter  
Raymond D. Hedberg  
Jack A. Parrish  
Richard K. Rosensteel  
Jay T. Rusmore  
E. C. Webster  
John V. Zuckerman

Professional Affairs  
Joseph H. McPherson, Chn.  
William D. Buel  
W. Ralph G. Bender  
Theodore R. Lindbom

### Ad Hoc Committee on Graduate Student Fellowships

Henry R. Brenner, Co-Chn.  
Ralph R. Canter  
James R. Glennon  
L. Richard Hoffman  
Raymond A. Katzell  
A. C. MacKinney  
P. W. Maloney

Edwin R. Henry, Co-Chn.  
William McGehee  
Herbert H. Meyer  
William A. Owens, Jr.  
Jack A. Parrish  
Ross Stagner  
Joseph Weitz